AD-1: Build New Runways

Runway additions allow improved airport configurations.

Background

The FAA has determined the throughput at the country's 31 busiest airports, called the benchmarked airports. Throughput, measured as the arrival and departure rates, depends on the airport runway layout. Increasing the number of runways that can be in use simultaneously is key to expanding an airport's capacity.

Ops Change Description

New runways at 15 benchmarked airports between now and 2010 provide more options for keeping multiple active runways. These additional active runways improve the throughput for the airport, and in some case reduce interaction with other close by airports in the same metropolitan area.

Benefit, Performance and Metrics

Throughput performance is increased by the addition of new runways and supporting taxiways.

Airport/Runway	Date	Capacity Improvement (percent)	Projected Growth to 2010 (percent)	Delays per 1000 Operations (FY 2000)
Atlanta (ATL) 9S/27S	2005	31% in VFR, 50% in IFR	32	30.9
Houston (IAH) 8L/26R	2004	35% in VFR, 37% in IFR	39	28.1
Dallas Ft. Worth (DFW) 18L/36R	2007	11% in VFR, 37% in IFR	22	23.8
Phoenix (PHX) 7/25	Operational	36% in VFR, 60% in IFR	33	22.0
Dulles (IAD) 12R/30L	2007	46% in VFR, 54% in IFR	23	19.5
St. Louis (STL) 12R/30L	2006	14% in VFR, 84% in IFR	35	18.2
Detroit (DTW) 4/22	2001	25% in VFR, 17% in IFR	34	17.6
Cincinnati (CVG) 5L/23R	2005	26% in VFR, 26% in IFR	44	15.4
Minneapolis (MSP) 17/35	2003	40% in VFR, 29% in IFR	11	12.7
Miami (MIA) 8/26	2003	10% in VFR, 20% in IFR	40	11.3
Seattle (SEA) 16W/34W	2006	52% in VFR, 46% in IFR	17	10.4
Orlando (MCO) 17L/35R	2003	23% in VFR, 34% in IFR	14	6.3
Charlotte (CLT) 18W/36W	2004	18% in VFR, 15% in IFR	17	6.0
Denver (DEN) 16R/34L	2003	18% in VFR, 4% in IFR	26	2.2

Note: A new runway is being added to Boston Logan airport (2005) to reduce delay in certain runway configurations. It is not expected to increase the optimum capacity of the airport.

Scope and Applicability

- New runways are planned at 15 of the benchmark airports. Environmental impact studies are underway associated with each airport project.
- In some cases new runways require redesign of routes in the TRACON airspace by removing interference with runways at the same or other nearby airport. Airspace redesign projects are underway in PHL, PHX, DTW, MSP, CLT, MCO, IAD, SEA, and IAH.
- Runway extensions (i.e., lengthening an existing runway) are not explicitly identified here, but will improve capacity by allowing larger aircraft to operate on these runways.

- Taxiways to accompany the new runways are essential to reduce congestion points on runways or at gates.

Key Decisions

- Dallas Ft. Worth (DFW) 18L/36R: supplemental Environmental Impact Statement (EIS) is required due to change in length of proposed runway.
- Atlanta (ATL) 9/27: supplemental EIS required due to change in length of proposed runway.

Key Risks

- Environmental analysis is planed for these new runways. The FAA is currently streamlining the environmental review process.
- If new procedures and airspace changes are required, additional environmental analysis will be required.
- Experience has shown that projected opening dates frequently change due to unforeseen circumstances at the local level. FAA (ARP) will monitor schedules and provide updated information on a quarterly basis.
- Pilots require training/familiarization with new terminal and surface routes and procedures.
- Gates and terminals at some airports may be insufficient to support the additional traffic volume.
- Deployment of Navigation lights, signs, ILS, LAAS, or other precision aids to provide coverage for new runways must be coordinated with runway construction.
- Jepessen and airlines flight planning tools must be updated prior to pilot training to allow airline planning for new runway use.